

## Health Disparities Tool: A User's Guide

This Healthy People 2020 health disparities (HD) tool summarizes health disparities and displays changes in health disparities over time for measurable population-based Healthy People 2020 objectives with available data. Whenever data are available, the disparities are shown by:

- Sex
- Race/ethnicity
- Educational attainment
- Family income

Below you'll find some information about specific features of the tool that will help you get started.

### Disparities Overview Page

For each measurable, population-based Healthy People 2020 objective, the HD tool's *Disparities Overview* page provides a summary of health disparities by population groups (e.g., by sex or race/ethnicity) for the latest data. It also shows a graphical display of the range of estimates, the population groups with the highest and lowest values, and changes in the range of estimates over time.

Summary measures for objectives expressed in terms of **favorable** events or conditions that are to be **increased** include:

- The best group rate, or the rate for the population group with the highest value for the specified population characteristic (e.g., educational attainment).
- The worst group rate, or the rate for the population group with the lowest value for the specified population characteristic (e.g., family income).
- The absolute (or range) difference between the highest ( $r_{\max}$ ) and lowest ( $r_{\min}$ ) group rates.
- The rate ratio between the highest ( $r_{\max}$ ) and lowest ( $r_{\min}$ ) group rates, or  $r_{\max}/r_{\min}$ . The  $r_{\max}/r_{\min}$  ratio is the factor by which the worst group rate is multiplied to equal the best group rate.
- The rate ratio between the average group rate ( $r_{\text{ave}}$ ) for all but the best group rate and the lowest ( $r_{\min}$ ) group rate, or  $r_{\text{ave}}/r_{\min}$ . The  $r_{\text{ave}}/r_{\min}$  ratio is the factor by which the average group rate for all but the best group rate is multiplied to equal the best group rate.

Summary measures for objectives expressed in terms of **adverse** events or conditions that are to be **decreased** include:

- The best group rate, or the rate for the population group with the lowest value for the specified population characteristic (e.g., educational attainment).
- The worst group rate, or the rate for the population group with the highest value for the specified population characteristic (e.g., family income).
- The absolute (or range) difference between the highest ( $r_{\max}$ ) and lowest ( $r_{\min}$ ) group rates.
- The rate ratio between the highest ( $r_{\max}$ ) and lowest ( $r_{\min}$ ) group rates, or  $r_{\max}/r_{\min}$ . The  $r_{\max}/r_{\min}$  ratio is the factor by which the worst group rate is divided to equal the best group rate.
- The rate ratio between the average group rate ( $r_{\text{ave}}$ ) for all but the best group rate and the lowest ( $r_{\min}$ ) group rate, or  $r_{\text{ave}}/r_{\min}$ . The  $r_{\text{ave}}/r_{\min}$  ratio is the factor by which the average group rate for all but the best group rate is divided to equal the best group rate.

### **Disparities Details Page**

Click on a year or time point on the x-axis on the *Disparities Overview* to view the *Disparities Details* page for that year or time point. The HD tool's *Disparities Details* page provides detailed comparisons by population groups (e.g., by sex or race/ethnicity) for the latest data. It also shows a bar chart and data table with all available rates, rate ratios, standard errors, and confidence intervals for the selected Healthy People 2020 objective.

### **Rate Ratios**

Rate ratios are expressed numerically using 3 decimal points and will always be equal to or larger than 1.000.

*Example:* A rate ratio of 1.432 between the rates for population groups A and B means that the rate for population A is 1.432 times the rate for population B—or that the rate for population group A is 43.2% higher than the rate for population group B.

All calculations in the HD tool are applied to the unrounded values of the estimates and their standard errors that are available in the Healthy People 2020 data system. Therefore, after rounding to 3 decimals, values from the HD tool for rate ratios may be different from calculations that use the displayed values of the estimated rates.

***Please note that comparisons are color-coded on the Disparities Overview and Disparities Details pages:***

- Disparities with rate ratios that are less than 1.100 (meaning the difference is less than 10%) or that aren't statistically significant when measures of variability

are available are considered small or statistically undetectable. [These comparisons appear in blue.](#)

- Disparities with rate ratios that are larger than or equal to 2.000 (meaning the difference is 100% or more) and that are statistically significant when measures of variability are available are considered large. [These comparisons appear in red.](#)



### Spotlight on Disparities

For each objective, the rate ratio 'ave/'min can be used to spotlight the most recent disparities data for that objective. If you see that the comparison between 'ave/'min appears in red or blue text on the *Disparities Overview* page, check the *Disparities Details* page for information about how the population relates to the best group rate. When only 2 groups have data available for rate comparisons by population characteristic, the spotlight is based on the rate ratio 'max/'min instead of 'ave/'min.

### 2020 Targets

Target values for Healthy People 2020 objectives are set based on population totals, not specific population groups. A 2020 target value for each objective is displayed on *Disparities Overview* and *Disparities Details* pages for that objective. Because targets aren't factored into disparities calculations, the HD tool does **not** show target lines. Read more here about how objective targets are selected.

### Definition of "Income"

Income and education are the primary measures of socioeconomic status in Healthy People 2020. Unless otherwise noted, "income" is defined as a family's income before taxes—meaning "income" and "family income" are used interchangeably in the HD tool. To help you compare groups over time, Healthy People 2020 categorizes family income using the poverty threshold, sometimes called the Federal Poverty level (FPL). Most of the time, the 5 categories of family income are:

1. Below the poverty threshold (i.e., less than 100% of the poverty threshold)
2. At 100%–199% of the poverty threshold
3. At 200%–399% of the poverty threshold
4. At 400%–599% of the poverty threshold
5. At or above 600% of the poverty threshold

### Check the HD tool often!

The Healthy People team will expand the HD tool to better serve the needs of Healthy People 2020 users like you. Eventually, the HD tool will include all data systems that provide data for measurable, population-based objectives in Healthy People 2020.

**Want more information about the data?**

DATA2020 provides technical information about the data that you'll need to correctly interpret the health disparities summaries, data tables, and charts. For the full range of methodology issues that could affect your interpretation of the disparities data, refer to the Data Details (show icon) for each objective.